

### MATERIAL SAFETY DATA SHEET

PRODUCT : Metsulfuron-methyl 20% WG

PRODUCT DESIGNATION : Herbicide

#### **Section 1. Product & Company Identification**

Common Name : Metsulfuron-methyl  
Grade : Formulation  
Active Ingredient : Metsulfuron-methyl  
Chemical Name of Active Ingredient (IUPAC) : methyl 2-[[[(4-methoxy-6-methyl-1,3,5- triazine-2-yl)aminocarbonyl] aminosulfonyl]benzoate  
Chemical Family of A. I. : Herbicide  
Molecular Formula of A. I. : C<sub>6</sub> H<sub>17</sub>N<sub>2</sub> O<sub>5</sub> P  
Molecular Mass of A. I. : 169.07 g/mol  
Manufacturer & Supplier : **M/s United Chemicals**  
**Head office:**B-371, 1<sup>st</sup> Floor, Meera Bagh, New Delhi,  
**Factory:**15/1, 15/2, 15/3, Industrial Estate, Vidisha,  
(M.P)  
Telephone Number : +91-11-25258770

#### **Section 2. Composition / Information on Ingredients**

<u>Name of Components</u>	<u>Concentration% w/w</u>
Metsulfuron-methyl	20.00% w/w
Inert Ingredients	80.00% w/w
<b>TOTAL</b>	<b>100.00% w/w</b>

#### **Section 3. Hazards Identification**

**Dangerous for the environment :**

**R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Special labelling of certain substances and mixtures :**

To avoid risks to man and the environment, comply with the instructions for use.

**S35** This material and its container must be disposed of in a safe way.

**S57** Use appropriate container to avoid environmental contamination.

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### Section 4. First Aid Measures

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**General advice** : Never give anything by mouth to an unconscious person.

**Inhalation** : Move to fresh air. Consult a physician after significant exposure. Artificial respiration and/or oxygen may be necessary.

**Skin contact** : Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.

**Eye contact** : If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist..

**Ingestion** : Obtain medical attention. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is conscious: Rinse mouth with water.

**Notes to physician** Treatment : Treat symptomatically

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### Section 5. Fire Fighting Measures

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**Extinguishing Media** : Water spray, Dry powder, sand, foam, carbon dioxide (CO<sub>2</sub>).

Avoid using high volume water jet.

**Special Fire Fighting Procedures** : Use personal protective equipment. Wear self contained breathing apparatus for fire-fighting if necessary.

**Specific Hazards during Fire** : In the event of fire, (NO<sub>x</sub>, CO<sub>x</sub>, SO<sub>2</sub>) may be formed.

**Further Information** : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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### Section 6. Accidental Release Measures

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**Spills and Disposal** : Recover the product by sweeping up or vacuuming without raising dust. Collect spilled material and waste in sealable open-top type containers for disposal.

**Environmental Precaution** : Prevent material from entering public sewer systems or any

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### Section 7. Handling & Storage

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**Precautions in Handling :** Avoid generating or breathing dusts while handling the product and mixing. Do not use product container for any other purpose. Wash out the container and dispose of it in an approved manner. For personal protective equipment (PPE) and hygiene advice, refer Section 8.

**Precautions in Storage :** Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Store in a safe place away from foodstuffs, seeds or fertilizers. Store out of the reach of children. Do not contaminate water, food, or feed by storage or disposal.

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### Section 8. Exposure Control, Personal Protection

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**Engineering Controls :** Handle in well ventilated area, generally natural ventilation is adequate.

#### Personal Protective Equipment

**Eye/ Face Protection :** To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection :** To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

**Respiratory Protection :** Not normally required. If vapours or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

#### General Hygiene Considerations

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:

1. do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored
2. wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

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### Section 9. Physical and Chemical Properties

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<b>Appearance / state</b>	: Solid
<b>Colour</b>	: Pale yellow – cream coloured granule
<b>Odour</b>	: Slight odour
<b>Flash point</b>	: Not applicable
<b>Vapour Pressure</b>	: $3.3 \times 10^{-7}$ mPa (25oC, metsulfuron-methyl)
<b>Flammability</b>	: Non combustible material
<b>Bulk Density</b>	: 0.6 – 0.9 g/ml
<b>Water solubility</b>	: Dispersible
<b>pH</b>	: 4 - 7 (1% dispersion)

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### Section 10. Stability & Reactivity

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**Stability** : Stable under normal handling and storage conditions.

**Conditions to avoid** : Decomposes on heating > 140 0 C.

**Materials to avoid** : None under normal conditions of use.

**Hazardous decomposition products** : Carbon oxides, nitrigen oxides (NO<sub>x</sub>), sulphur oxides.

**Incompatibility with other materials** : None reasonable foreseeable

**Hazardous Decomposition Product** : No decomposition if stored and applied as directed.

**Hazardous Polymerization** : Hazardous Polymerization will not occur.

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### Section 11. Toxicological Information

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**Acute Oral Toxicity** LD<sub>50</sub> for rats : >5,000 mg/kg

**Acute Dermal Toxicity** LD<sub>50</sub> Rabbit : >2,000 mg /kg

**Eye Irritation** Rabbit : Slight eye irritant

**Skin Irritant** Rabbit : Not a skin irritant

**Skin sensitization** Guinea pig : Not a skin sensitizer

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### Section 12. Ecological Information

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**Toxicity to Bird** : LC50(5 d) dietary, Mallard duck : > 2510 mg/l

**Toxicity to fish** : LC50(96 h) Rainbow trout: > 150 mg/l

**Daphnia magna** : EC50 (48h) : 120 mg/l

**Toxicity to aquatic plants** : EC50 (72 h) Selenastrum capricornutum : 0.157 mg/l

**Toxicity to Honey bee** : LD50 (48 h) Apis mellifera : 44.3 µg/bee

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### Section 13. Disposal Consideration

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**Product Disposal** : Ideally the product should be used for its intended purpose. If there's a need to dispose of the product, approach local authorities who hold periodic collection of unwanted chemical. On site disposal of the product is not acceptable.

**Container Disposal** :

Do not use this container for any other purpose.

Triple rinse containers, add rinsate to the spray tank, then offer for recycling / reconditioning or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. if no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

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### Section 14. Transport Information

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**IMDG Classification**

**Shipping name** : Environmentally hazardous substance, solid , n.o.s  
(Metsulfuron methyl)

**Class** : 9

**Packing group** : III

**UN number** : 3077

**Marine pollutant** : Yes

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### Section 15. Regulatory Information

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#### R phrases :

**R51/53** Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**R36** Irritating to eyes.

**R36/38** Irritating to eyes and skin.

**R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### S phrases :

**S35** This material and its container must be disposed of in a safe way

**S57** Use appropriate contamination to avoid environmental contamination.

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### Section 16. Other Information

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All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

**Safety Division : UNITED CHEMICALS, SAFETY DIVISION**